

Remarks

Reconsideration and allowance of the subject patent application are respectfully requested.

Based on a discussion between Examiner Kang and the undersigned, it appears that the Preliminary Amendment submitted on June 30, 2000 was not entered and examination was carried out with respect to the original claims. Accordingly, the above amendments are made with respect to the original claims.

Information Disclosure Statements were filed in this application on June 30, 2000 and October 19, 2000. Applicants respectfully request that initialed copies of the PTO-1449 forms submitted with these Information Disclosure Statements be returned with the next office action.

Applicants note that claims 4, 7 and 9 have been withdrawn from consideration as being directed to a non-elected species. These claims (with changes to the dependencies of claims 7 and 9) are retained in this application. If generic claim 1 is allowed, Applicants respectfully request that claims 4, 7 and 9 be re-instated and allowed.

The drawings were objected to as allegedly failing to show the "current constricting structure of an insulating layer" of claim 3. Applicants traverse this rejection and note that silicon oxide film 10 of Figures 1 and 3 is an example of the "current constructing structure of an insulating layer" of claim 3. *See, e.g.*, page 13, lines 2-5 of the specification ("The element has a current constricting structure formed by the SiO₂ film 10 and can therefore obtain a high internal quantization efficiency and a high external radiation efficiency."). Because an example of the claimed current constricting structure of an insulating layer is shown in the drawings, withdrawal of the objection to the drawings is respectfully requested.

Claim 6, 8 and 10 were objected to as being in improper form. Claims 6 and 8 have been canceled and claim 10 has been amended to depend from claim 1. Accordingly, withdrawal of this objection is respectfully requested.

Claim 1 was rejected under 35 U.S.C. Section 112, second paragraph, as allegedly being indefinite. To address the issue raised in the office action, claim 1 has been amended to refer to "the GaAs substrate side of the light emitting layer" and to "the other side of the light emitting layer." Reconsideration and withdrawal of the rejection of claim 1 based on 35 U.S.C. Section 112, second paragraph, is respectfully requested.

Claims 1-3 and 5 were rejected under 35 U.S.C. Section 103(a) as allegedly being "obvious" over Sugawara *et al.* (U.S. Patent No. 5,466,950) in view of Dutta (U.S. Patent No. 5,821,569). Applicants traverse this rejection.

Sugawara *et al.* discloses a device including a first reflective layer 13 and a second reflective layer 19. Reflective layer 13 reflects light of 550 nm and transmits light of 600 nm and reflective layer 19 reflects light of 600 nm and transmits light of 550 nm. Among other things, these reflective layers do not constitute a resonator and active layer 15 is not disposed at a loop position of a standing wave in a resonator. Sugawara *et al.* is very different from the arrangement specified in claim 1.

Dutta discloses various materials that may be used for a distributed Bragg reflector. First, like Sugawara *et al.*, Dutta does not disclose a resonator and thus even assuming for the sake of argument that Dutta was properly combinable with Sugawara *et al.*, the subject matter of claim 1 would not have resulted. Second, Dutta provides no teaching or suggestion whatsoever that any of the materials disclosed therein be arranged in a resonant cavity light emitting diode in the

manner specified in claim 1. At least for these reasons, the proposed combination of Sugawara *et al.* and Dutta does not render obvious the subject matter of claim 1.

Claims 2, 3 and 5 depend from claim 1. The proposed combination of Sugawara *et al.* and Dutta does not render these claims obvious because of the dependency of these claims from claim 1 and because these claims specify additional patentable features.

New claims 11-28 have been added. The subject matter of these new claims is fully supported by the original specification and no new matter is added. Claims 11-17 depend directly or indirectly from claim 1 and are believed to be allowable because of this dependency and because of the additional patentable features recited therein. Independent claim 18 is believed to be allowable for reasons similar to those discussed above with respect to claim 1. Claims 19-28 depend from claim 18 and are also believed to be allowable.

The pending claims are believed to be allowable and favorable office action is respectfully requested. Should any issues remain, the Examiner is invited to telephone the undersigned at the number listed below.

Respectfully submitted,

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